Mergenthaler Linotype Company

presents the

LINOFILM system

THE NEW CONCEPT in photocomposition

LINOFILM system

Text matter in this booklet is 10-point Linofilm Primer and captions are 10-point Linofilm Spartan Medium. Display heads were set in 24-point Spartan Black Condensed, then enlarged on the Composer to the desired size, approximately 120-point. Both red and black alternating characters were screened to 70 per cent value. Headlines and copy for the graphs were set in various members of the Linofilm Spartan Family. The Linofilm product was photographic paper; printing by offset lithography.

Cold type has so much glamour that it has long intrigued the printer, whether he produces daily newspapers, fine books or business forms.

As early as the turn of the century, when mechanical typesetting was still in its infancy, the first patent for phototypesetting had already been issued. Its early decades closely parallel those of the Linotype.

Just as it took Ottmar Mergenthaler to materialize the dream of mechanical typesetting after many ideas had proved impractical, so it took the full resources of the organization he had founded, Mergenthaler Linotype Company, to translate the dream of phototypesetting into an economically sound system.

For glamour is not enough. There must be real, definite economic advantage to any new method. To make a permanent place for itself in the graphic arts, cold type had to:

- 1. Produce finer typography; or
- 2. Produce a better profit.

The Linofilm System does both.

The Linofilm System is the first and only system of integrated units which provide not only for setting type photographically but for corrections and alterations and for makeup into page form.

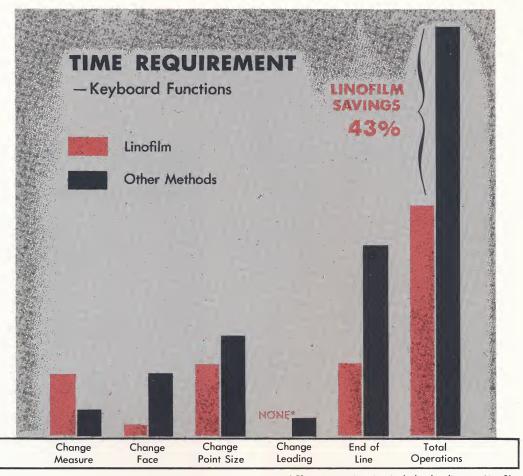
The Linofilm System has been field-tested extensively and intensively in both newspaper and commercial printing operations. Even while technical problems were solved and improvements added, economic studies in depth—the first of their kind, also—amassed the data which now gives a realistic yardstick by which to appraise Linofilm superiority.

By every criterion, Linofilm is far superior to any other method of cold type composition.

- 1. Linofilm is less expensive as an initial investment, in leasing costs, in machine-hour costs.
- 2. By simplifying keyboard, and separating keyboard and photographic functions, Linofilm utilizes operator skills and time to maximum advantage.
- 3. Linofilm is far superior in keyboarding, photographing and making-up display typography.
- 4. Linofilm is economical of floor space and simplifies composing room layouts.
- 5. Linofilm has the finest typographic facilities in the world—the matchless resources of Mergenthaler Linotype Company's library plus the resources of companies associated with Mergenthaler.







*Changing point size includes leading on Linofilm



LINOFILM system

The Linofilm System consists of a Keyboard Unit, Photographic Unit, Tape Editor, Corrector and Composer. This provides easy, practical tools for every step in setting and making-up cold type.

The Keyboard Unit is not only the first link in this smooth chain, it's the first example of Linofilm superiority.

The Keyboard is simple so the operator's skill, energy and time can be most productive. Here, right at his fingertips, without any time- or energy-consuming stretch or reach, the operator controls all the typographic functions of the Linofilm.

Eighteen fonts are instantly available, covering one of the following point-size ranges, 6 to 12, 12 to 24 and 18 to 36 points. Leading is provided in one-point increments by an easy dial setting. Centering and quadding left or right, as well as justification, of course, are merely a push-button operation. The operator can letter space (either plus or minus) to any extreme demanded by the discriminating typographer.

The operator sees his work before him immediately, in the same form as a typist—

a typescript sheet. If he does make an error he presses a "line erase" key, which voids that line before it is photographed, and resets that line immediately.

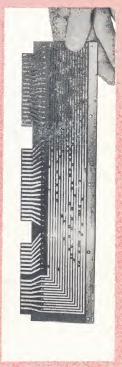
The typescript provides a convenient "proof" for first reading.

Operator time is a major factor in composing room economy and efficiency. For example, three quarters of all advertising lines are 12-point and under.

Fast keyboarding is primary in economic composition. The Keyboard, scientifically designed to the operator as well as to the job, assures continued takes of copy without the deterrent of fatigue.

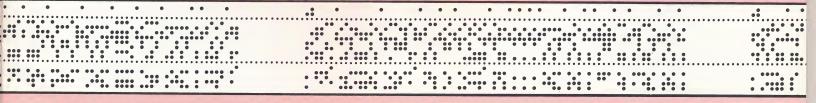
The simple keyboard and auxiliary controls enable the operator to develop an efficient touch-type rhythm that he can easily maintain throughout his whole shift without interruptions that sap productivity.

Display sizes of type can be keyboarded at the same speed as text matter. This alone is a very important economy of time and effort. The operator's rhythm is not altered and there is no decrease in his rate as point sizes change in a job.



Linofilm's "width card" produces minutely precise spacing, under constant operator control.

THIS TAPE PERFORMS ALL FUNCTION



Linofilm's Keyboard consists of a conventional typewriter keyboard plus a small bank of control buttons. Training time is minimal; efficiency maximum.



PHOTOGRA

By separating the Photo Unit from the Keyboard, the Linofilm System becomes the first in which the speed of photographing type is not pegged to the operator! The Photo Unit is entirely automatic.

The rhythm of the operator is not broken by distracting chores. He need not monitor the photography.

There is no delay while changing from film to paper or vice versa or for reloading the magazines.

Tape from several keyboards can be sent to the Photo Unit. In fact, a ratio of several Keyboards to one Photo Unit is desirable in most installations.

Tape can be conveniently stored or transported to a distant Photo Unit. It can be edited and corrected quite easily on the Tape Editor.

Maintenance can be scheduled so there is no waiting time; operators can punch tape while the Photo Unit is being serviced; photography continues while the operator takes a lunch break.

Copy can be proofread and corrected before photography.

When a take or a job is completed, the completed film or paper is in a removable magazine and signals notify the operator to remove the exposed material and supply more tape.

The Linofilm Photo Unit photographs at the rate of six ems per second. This is the equivalent of 15 lines per minute of 12point on an 18-pica measure.

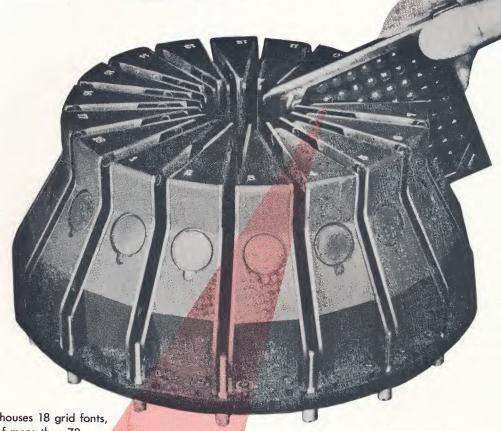
Line lengths range to 42 picas.

The Photo Unit produces right-reading positive type on photographic film or paper.



The completely-automatic Photo Unit performs every operation of changing font, point size, leading and line length. Flashing lights signal when more tape, paper or film is needed and when a given job has been completed by the machine.

If refinements or original leading are required, the Photo Unit offers the added feature of manual setting to add or subtract interlineal spacing in increments as small as ¼-point to control the depth of the finished job to minute specifications.



The grid turret houses 18 grid fonts, the equivalent of more than 72 magazines of hot-metal matrices.

Basis for Linofilm's superb typography is this grid font, the equivalent of many magazines of hotmetal matrices. The font, along with every other element of the revolutionary optical system, is in an absolutely rigid horizontal plane. This assures knife-sharp images and removes any inherent speed limitation on the photographic function.



POINT SIZES used in NEWSPAPERS

Based on 50,000 lines per week

98%

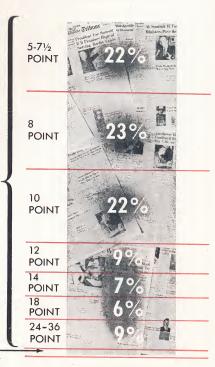
MOST-USED

TYPE SIZES

AVAILABLE

from

PHOTO UNIT!



Over 36 POINT, 2%

COMPOSE LINOFILM system



Unlike other cold-type methods which perform only the first step, the Linofilm System carries out the entire process of utilizing photoset type in making up ads, pages or signatures easily, quickly . . . and profitably. This makeup is done on the Linofilm Composer . . . perhaps the most fascinating element in the System.

The Linofilm Composer performs all the functions of makeup at the stone . . . plus the facility of enlarging or reducing any type to exactly the size required with no reference at all to conventional point sizes. The Composer will produce up to a full newspaper-sized page, with all type in minutely exact size and position. Only halftone or line art need be inserted before the job is ready for the engraver or platemaker.

The work of the mark-up man is simplified to the minimum. All he must indicate is the face and the size that falls within the extremes of the finished job.

The keyboard operator, too, has a simplified job; he needn't shift from size to size at all.

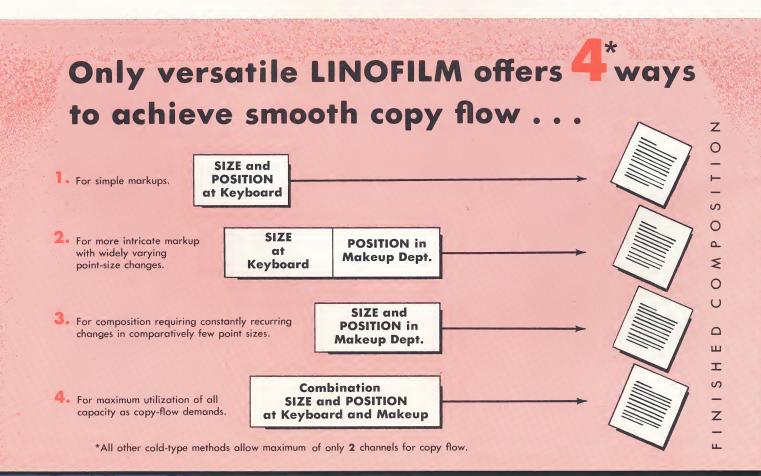
The Composer operator works from a layout on tracing paper, which is placed over the screen of the composer.

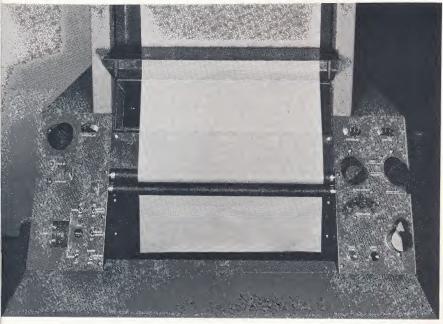
He places every line, leaves proper space for art and signature logo, and, in time so short it will raise eyebrows, delivers the made-up ad in film or photographic paper.

With only four simple controls, the Composer operator can take any type up to 30-point from the Photo Unit and reduce it to two-thirds, or enlarge it to six times, its original size—a range from 4- to 180-point! He can set lines at angles up to 90°!

White space, a major portion of advertising and many other jobs, is "built-in;" it need not be created by type furniture and manipulation of metal.

The Composer backs up as easily as it moves forward. So the operator can make up an entire column, then go back to the head of the page to compose succeeding columns on the page. He can pick out any line on the input film at any time so that it is unnecessary to set copy in exact order on the "galley."





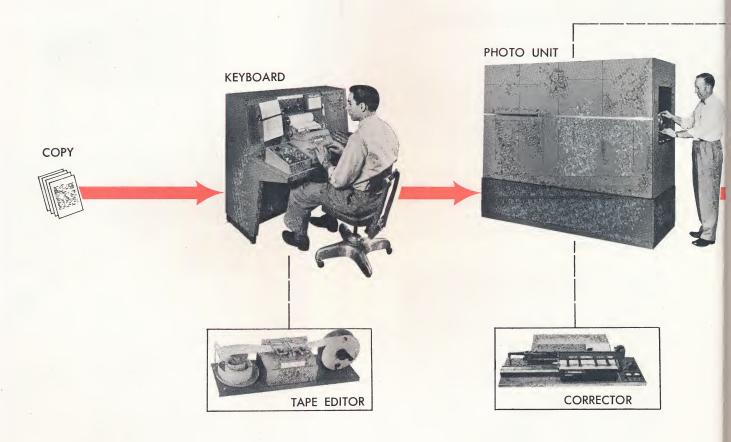
Over the working area of the Composer (above), the operator can place a detailed layout and then place each typographic element in precise position. The simple controls are conveniently placed (right) and loading the Composer (below) is as easy as servicing any component of the Linofilm System.





THE ONLY COMPLETE

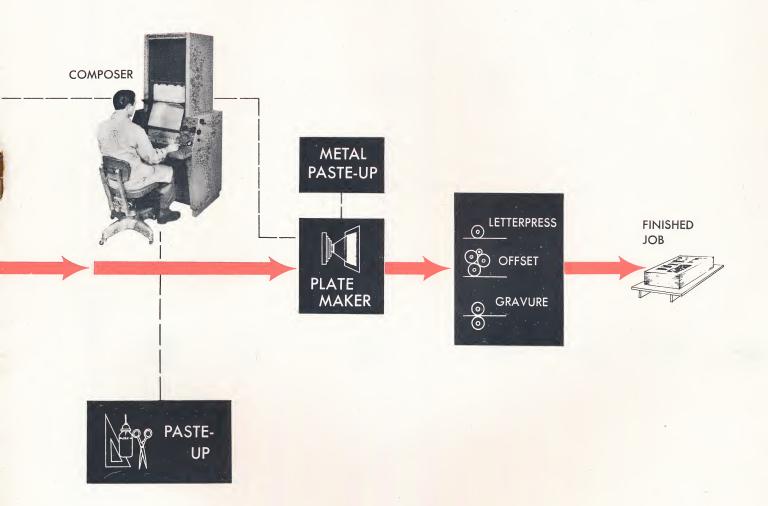




The Linofilm System has great economic advantage in *every* printing process. Its sharp film, always of consistent thickness and requiring no opaquing, is ideal for offset lithography and rotogravure platemaking. On photo paper, letters are equally crisp and black. Photoengraving, whether for metal pasteup or for conventional platemaking, is much easier and better when there are no expensive pre-preparations.

The Photo Unit receives *all* operating instructions on tape. Reacting to the 15-hole code, it changes font, point size, leading and line length automatically on signal. To place this information on tape requires only a simple, one-step operation with no time lag and no break in keyboard rhythm.

FOR PHOTOCOMPOSITION



A check of thousands of slug lines in a typical American newspaper shows that 29% of these require changes in type size and attendant leading. By utilizing the Linofilm Composer, these changes need not be made at the Keyboard; the operator can set an entire ad with no concern for the ultimate type size. But the Composer is more than an enlarger; it places each type element in precisely the position required by the layout, handling angled or even vertical lines with ease.

The Linofilm System is so versatile and flexible that this schematic plan is only one way in which the great potentials of each unit may be linked. The Keyboard has been planned by Henry Dreyfuss, noted industrial designer, to conform to the physiology and psychology of the operator. Training periods for operators are consistently lower than even optimistic forecasts, and skills that he has acquired in hot-metal work are utilized to maximum advantage.

How the versatile LINOFILM SYSTEM adapts to every need

Key to Symbols

KEYBOARD UNIT

PHOTO UNIT



CORRECTOR

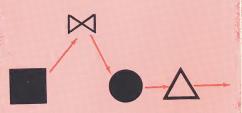


COMPOSER

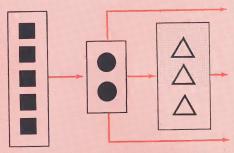


TAPE EDITOR

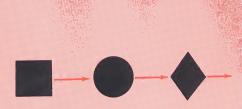




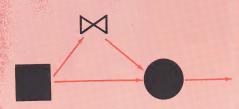
A typical installation for production of large display advertising, posters, placards, etc. Corrections are made at the Keyboard.



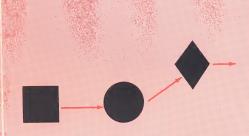
A typical newspaper operation using a battery of Linofilm Keyboards feeding multiple Photographic Units. This produces Composer input or copy for platemaking or metal pasteup.



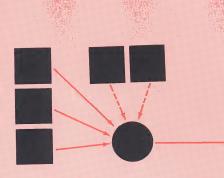
A typical newspaper installation producing film for rotogravure magazine.



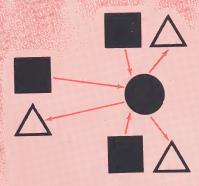
A typical trade composition shop combination to furnish repros on film or paper. Corrections and alterations are made on tape.



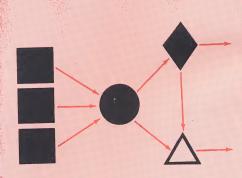
A typical book composition operation furnishing book galleys on film, making author's corrections on Corrector.



A typical publications operation utilizing remote Keyboards at distant bureau offices to feed central Photo Unit.



For a typical manufacturing organization, divisional offices use their own Keyboards for composition. A central Photo Unit supplies film for Composers that, at Keyboard locations, produce business forms for local needs.



A typical all-purpose operation. Flexibility of Linofilm System allows tailoring of work flow to meet constant or changing individual requirements.

CORRECTOR LINOFILM system



the

Whenever type is set, alterations and corrections are inevitable. In cold type it had required painstaking and skilled deletion of errors and transplanting of corrections. Often expensive and time-consuming opaquing had to mask shadows: or platemakers' arc lamps melted the adhesive, allowing lines to slip or buckle.

Automaticity of correction was a prime necessity to the economies of cold type and Linofilm's Corrector solved the problem admirably.

Corrections and author's alterations are set on the Keyboard and come from the Photo Unit in "galley form." This "correction galley" is placed in a frame on the Corrector, next to the "finished galley." Now the operator places the two linesoriginal and corrected-side by side. (This is the only manual operation and corresponds to a hotmetal bankman finding the error line in a galley of Linotype slugs.)

Now the Corrector takes over. Automatically it

rection line . . . and welds the new material into the original copy so smoothly that no opaquing is necessary.

Any number of lines can be removed, replaced or added. The Corrector can also be used to insert folios, running heads, titles, captions or similar repetitive material.

Corrections can be made at other points in the production cycle, too. The operator can make them right at his Keyboard through use of his line-erase key. Or the tape itself, before or after it has been run through the Photo Unit, can easily be corrected. This is done on the Linofilm Tape Editor. This is similar to the film-splicer used for 35mm movie film. Two cutting blades remove the error section and correction lines are spliced in for replacements.

the



TYPOGRAPHY

The ultimate product of any method of typesetting and any system is the characters of the alphabet that appear in the printed job. All composing room processes are merely preliminaries to reproducing letters and words on paper. So the typography of the Linofilm System is the first and final criterion of its superiority.

Linofilm typography is superb. That word has been weakened by careless use; but in the case of Linofilm typography, it still retains its original, strong meaning.

Good typography depends, first of all, on the typographic resources of the manufacturer. In this area Mergenthaler Linotype Company stands unchallenged. Such bright names as those of William Addison Dwiggins, Bertram Grosvenor Goodhue, George W. Jones, Rudolph Ruzicka, and C. H. Griffith are identified with Linotype's program of developing the finest type design.

Their aims have been the goal of Linofilm typography, too, but with even greater latitude for bringing the fullest functionalism and beauty to the reader's eye. No restrictive specifications of letter width confine the designer. Each letter is drawn to preserve its character and to allow it to weave into a fabric of words that read easily and pleasurably; the integrity of each font is undiluted by the mathematical limitations that have weakened many designs in other processes.

Typographic refinements become routine in Linofilm composition. Kerning, perhaps the finest example of beauty in type, is a built-in feature; the operator has only to select kerned characters right at his keyboard.

Space may be added or subtracted for an individual character. The word "To," for instance, can irritate the eye if letters are spaced by sheer arithmetic. But on the Linofilm, the operator can tuck the lowercase "o" right under the crossbar of the "T" to create a logotype as esthetically pleasing as if the type designer had done it at his drawing board. Optical letterspacing, imperative in setting all-cap words, is just as simple.

For justification, spacing occurs only between words. So never need words "fall apart," especially in enlargments, because a machine is incapable of proper spacing. Justification is, of course, entirely automatic on the Linofilm.

To

Letters must be woven snugly into words and phrases to assure maximum readability . . . the final test of good typography. By purely mechanical spacing, a typical joining of T and o can be no better than this.



In Italic, especially, when individual letters must occupy separate areas, words "fall apart" when a combination such as an o and an foccur. But Linofilm frees the typographer from rigid limitations.

To

Minus spacing is as easy for the Linofilm operator as straight setting. Now, when he has this T-o combination, he takes space away from the T and tucks the o neatly under the right shoulder for an eye-pleasing unit.



The ease of letter-tying is especially apparent in setting Italic. Here, with Linofilm's minus spacing, two letters are fitted so neatly that the eye sees them, not as two separate characters, but as a single word. Plus spacing is just as easy.



The operator also has available the full selection of fixed spaces, ems, ens and thin spaces, right at his fingertips.

For its obvious application to advertising, Linofilm offers such popular display faces as the vast Spartan family, Bodoni Bold, Caslon, Garamond and the Trade Gothics. In body sizes are all these faces plus such prime favorites as Caledonia, Times Roman, Primer and Corona, the most widely used newspaper body face in the world. All are now available on the Linofilm and an extensive typographic program constantly augments this library.

Special characters are available for any use: Such simple devices as the paragraph mark; footnote symbols for annotated copy; scientific symbols of technical setting.

While these have been taken from Linotype's library of more than a million characters, in each instance the Linotype characters have been completely redrawn to take full advantage of the far greater flexibility of photographic composition.

The final product, on film or photographic paper, is crisp, clean and black . . . ideal copy for the engraver or platemaker.

corona Primer SPARTAN

CALEDONIA



W. A. DWIGGINS



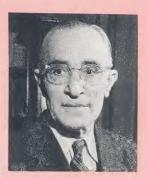
GEORGE W. JONES



RUDOLPH RUZICKA



HERMANN ZAPE



C. H. GRIFFITH

Mergenthaler typography comes not only from the acknowledged artistry of men like this—a veritable Who's Who of type designers—but also from the high skills of technicians who translate the artists' creations into Linotype matrices and Linofilm grid fonts.



for ADVERTISING COMPOSITION

For advertising composition, Linofilm versatility pays dividends in speed and the ability to utilize several makeup methods. To level work-flows, any combination of Composer makeup, or film, paper or metal pasteup is speeded by Linofilm. Many ads can be composed right at the Keyboard.



1038 FIFTH AVENUE 3 BIG DAYS, 2 BIG NIGHTS

PRICES SLASHED JUST Thurs., Fri., Sat., Aug. 14-15-16 IN TIME FOR BACK-TO-SCHOOL! SALE STARTS THURSDAY

OPEN Thurs. & Fri. Nite 'til 9

SALE! SALE! reg. \$1.99 & \$2.99

2000 BLOUSES

NYLONS!

ROLL-UP SLEEVE SHIRT STYLES! SIZES 32-38

COTTONS! DACRONS!

SPECIAL PURCHASE!

FAMOUS NAME ROLL-UP SLEEVE

reg. \$2.99

L for Combed cotton! Continental Collars!
Sizes 32-38 or \$1.59 ea.

1500 SWEATERS

Just in time for Fall! Interlock Orlon

SLIPOVERS & CARDIGANS reg. \$2.99 & \$3.99
Novelties! Classics! Short & Long Steeves!

SKIRTS 600 FAMOUS MILL WOOL

SPECIAL!

100° wools! Latest Fall colors! Superbly tailored!

SPORTSWEAR

CLEARANCE

SAVE OVER 50%

SHORTS JAMAICAS P PEDAL **PUSHERS** SKORTS ea.

CHINO IN SOLIDS AND TARPOON PLAIDS reg. \$ 199

SIZES 10-18

SPECIAL PURCHASE! CORDUROY & CHINO CAPRIS D

SOLID COLORS!

NOVELTY WEAVES!

reg. \$ 299 Sizes 10-18 Entire Stock Beautiful SWIM SUITS

REG. PRICE **Buy TWO and Save!**

SAVE! . . . HALTERS MIDRIFFS

SPORT for TOPS

Cottons! Broadcloths! Some Knit Trims! Sm., Med., Lg. req. \$1.00



TWA TRAVEL BAG

WITH ADJUSTABLE SHOULDER STRAP YOURS FREE WITH EVERY 3-PAIR PURCHASE OF OUR GLAMOROUS WONDER SHEER OR SACHET NYLONS!

FINAL CLEARANCE LESS THAN WHOLESALE COST!

DRESSES 2000

REG. \$ 10 REG. 10 9.99

REG. \$ TO 12.99

Latest styles! Relaxed chemise look, streamlined sheaths or full, full skirts! Cottons' sheers, prints! Junior, Misses' and women's sizes.

FALL COATS \$

SPECIAL PURCHASE! FLEECES! TWEEDS! POLISHED BLACKS! CASHMERE BLENDS! FALL COLORS! NEWEST RELAXED SILHOUETTES! MISSES' SIZES \$24.99 &

CHILDREN'S WEAR

JUST IN TIME FOR BACK-TO-SCHOOL!

SPECIAL PURCHASE! Girls' FALL

DRESSES

and Pojomos di new har fall. Attendare all some s and Bacder Prins. Regularly \$2.99 otton Dusters

Brushed Royon Gowns loby Doll Pojomos

LINGERIE

SPECIALS ...

100° o Orlor

reg. \$3.99

sizes 4-14 PLAIDS! SOLIDS! LATEST STYLES & COLORS!

Boys' FLANNEL SHIRTS reg. to \$2.49 Plaids! Stripes! Checks!

Sizes 3-8

SPECIAL PURCHASE! Girls' FALL SWEATERS

reg. to \$3.99
Slipovers' Cardigans'

GIRLS' FALL

BLOUSES \$1 reg. \$2.99

Cottons! Dacrons! Jerseys! Sizes 3-14

BOYS' ORLON SWEATERS

Girls FALL SKIRTS

\$150 & \$2 reg. \$199 & \$299

Wools! Felts! Quilts! Sizes 3-14

Girls' Corduroy CAPRI PANTS

\$1.50 FEB. 10 GET READY FOR FALL! Sizes 7-14

> BOY5' SLACK SETS

reg. to \$3.99
Flannels!
Corduroys!
Sizes 3-8

Your Credit is Good at No Money Down!

CDAVCALL



for BOOK COMPOSITION

For Book Composition the finest, most intricate typesetting is produced profitably at the Keyboard. Entire pages can be made up using the Keyboard and, in this area where demands of the typographer are highest, Linofilm's superlative typographical resources are shown at their best.

SATELLITE OF THE SUN

ture. On the same day in April the South Pole experienced 100 degrees below zero Fahrenheit, while Little 68 America, on the edge of the continent, had unseasonable melting temperatures, causing icy roofs to leak. The Arctic Ocean is not the cold pole of the Northern Hem sphere. The cold-air masses that dominate norther weather are generated in Greenland, Northern Siber and Alaska-ice sheets far smaller in extent than t of Antarctica.

Why the Poles Are Important

But both polar regions contain the ends of th around which the earth turns, and the poles powerful earth magnet. Because of this there a geophysical observations which can best or made in polar regions. There the magnetic force of the earth are perpendicular to its si steer incoming electrically charged particle more cosmic rays to come down and more the aurora. All those phenomena in the phere which take place as a result of ra the sun-such as the creation of ozone tenance of the ionosphere-are intere during the long polar nights when the are completely absent.

The Exploration of the Antarctic and Arctic

Two hundred years ago Captain Cook's proved that there was a sea all around the wor! Southern Hemisphere. He suspected that the

Chapter 2

THE CEDARS OF LEBANON

In Bible Times

In Bible times there was a seashore country at end of the Mediterranean Sea.

It had two beautiful seaport cities that were na and Sidon.

The country was famous for its huge cedar trees on the mountains just back from the coast. It was fa the workmen who cut down the trees and made sweet. lumber from the logs-wood that was used in kings and for pre workmen knew how to lin and make

The co came fror seashore. kings. One

Date line, International, 118-19 Date une, international, 110-19
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Kappa Velae, 82 Kipling, Rudyard (quot Koko fires, 36, 37 Kvalöy Island, Norway, 5

Latitude(s), at equator high, 44, 55, 121

... ROTOGRAVURE MAGAZINES ...

A simple Keyboard-Photo Unit-Corrector installation produces clean, crisp film for rotogravure work. Because film that has been corrected or altered on the Corrector is exactly the same thickness as the original, it assures perfect emulsion-to-emulsion exposure to roto plates.



.. JOB PRINTING

Only a system as complete and versatile as Linofilm can meet all the many, varied and exacting requirements of commercial printing at a profit.



eastern

ed Tyre

ous for telling alaces

at, 119; man's response of the seasons at, 34, 37, 37, at, 33-34; vacation-defick, 86

ock), 89, 90

nd time zones,

9



Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, New York

LEADERSHIP THROUGH RESEARCH

Printed in U. S. A. LF1.04-H-XX-35X